



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

①

D119-796-141TRN
Job Sheet 174925



Part No: D119-796-141TRN

Job Qty: 1 ea

Part Name: Crosstube Turning Detail



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 3/23/18

Job Tracking No:

Due Date: 4/26/18

Created By: Michelle Gagnon-Donovan

Type: SOLD

Description:

Note: D119-796-141 REV H IPP REV A RQ 14/06/06 VERIFIED BY DD IPP REV:B 16.05.04 AS PER DWG REV.H
DD VERF:JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		4/25/18	0.00	0.00	Start Up Crosstubes-1		↑
100	Mori Seiki	1 pcs		4/25/18	1.99	1.52	Mori Seiki TL-40		DAS
110	QC	1 pcs		4/25/18	0.00	0.00	QC2		56
120	Mori Seiki	1 pcs		4/25/18	0.00	1.52	Mori Seiki TL-40		9-89
130	QC	1 pcs		4/25/18	0.00	0.00	QC2		↓
140	QC	1 pcs		4/25/18	0.00	0.00	QC8		↓
145	Crosstubes	1 pcs		4/25/18	0.00	0.33	Crosstubes-1		↓
150	HandFXtube	1 pcs		4/26/18	0.00	0.40	Crosstubes-3		SA 18-04-1C
160	QC	1 pcs		4/26/18	0.00	0.00	QC7-1		↓
170	Packaging	1 pcs		4/26/18	0.00	0.00	Packaging3-1		LG014
180	QC21-FG	1 Ea		4/26/18	0.00	0.00	QC21		18/04/18

Part Op 100 - 1-Fill tube with sand & install plugs on both ends as per Folio FB316 2-Turn first side as per Folio FB316 3-Blend Descriptions: transition lines only, **do not sand whole tube**: FOLIO REV: _____ DWG REV: _____ *Use mill bastard file, brush file repeatedly with file card. *Do not use sandpaper coarser than 320 grit.

120 - 1-Turn second side as per Folio FB316 2-Blend transition lines only, **do not sand whole tube**: 3-Remove sand and plugs 4- scribe batch # and part # as per dwg

145 - GRIND ONLY TRANSITION LINES SMOOTH LONGITUDE WAY.

150 - 1- handfinish X-TUBE INSIDE AND OUT 2- ALODINE AND ACID ETCH X-TUBE INSIDE AND OUT. USE RED SCOTCH BRITE

170 - LOCATION : LG014

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D6024-103	Crosstube Material	1 Ea (1 ea)	90-Start up Operation	

B150732

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D6024-103	1	30	0



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CANADA
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www.dartaerospace.com

Container No: S060676



Part: D119-796-141TRN

Job No: 174925

Serial No/Batch: S060676

Revision: H

Inspector:

Date: 04/12/18

28
JVR

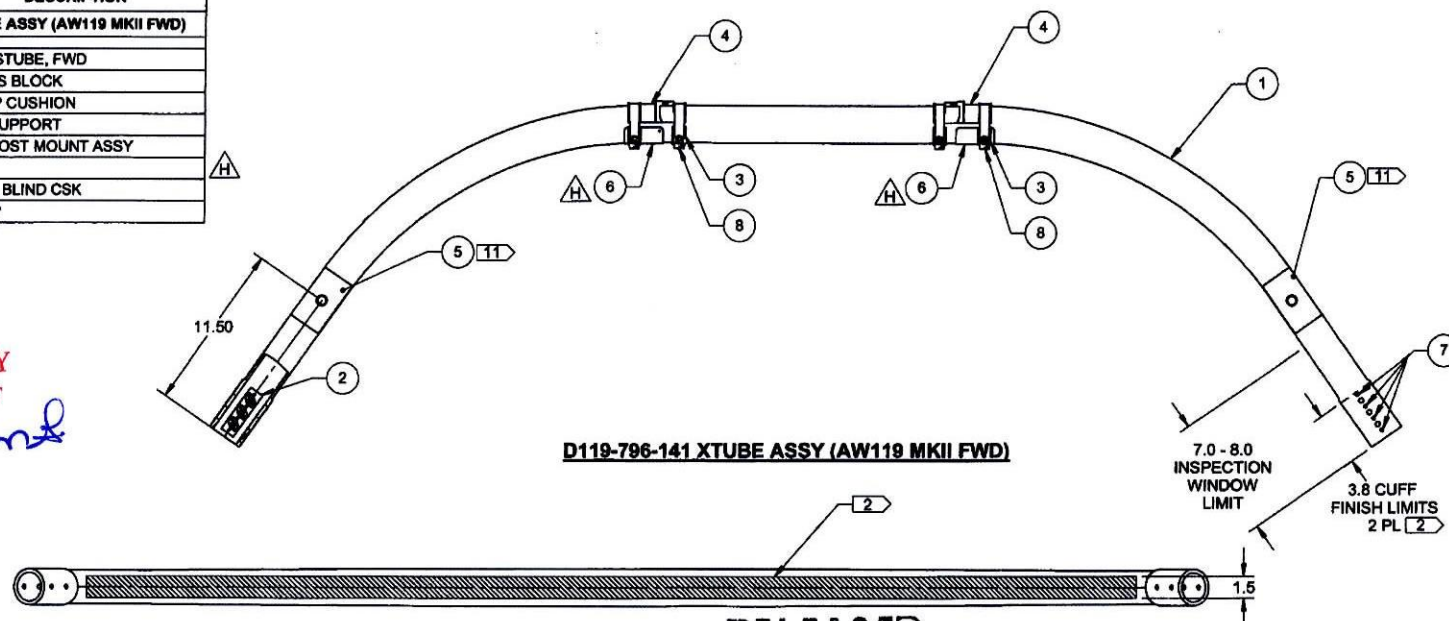
Part Specifications

Specifications could not be found.

Plex 3/23/18 9:39 AM Dart.Gagnon.Michelle

ITEM	QTY	P/N	DESCRIPTION
	X	D119-796-141	XTUBE ASSY (AW119 MKII FWD)
1	1	D119-796-141BND	CROSSTUBE, FWD
2	4	D2873-043	RADIUS BLOCK
3	4	D5123-3	CLAMP CUSHION
4	2	D5124-1	FWD SUPPORT
5	2	D5152-041	FWD POST MOUNT ASSY
6	2	D5305-1	SHIM
7	16	CR3212-4-08	RIVET, BLIND CSK
8	4	MS21920-24	CLAMP

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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 174925
MAR 26 2018

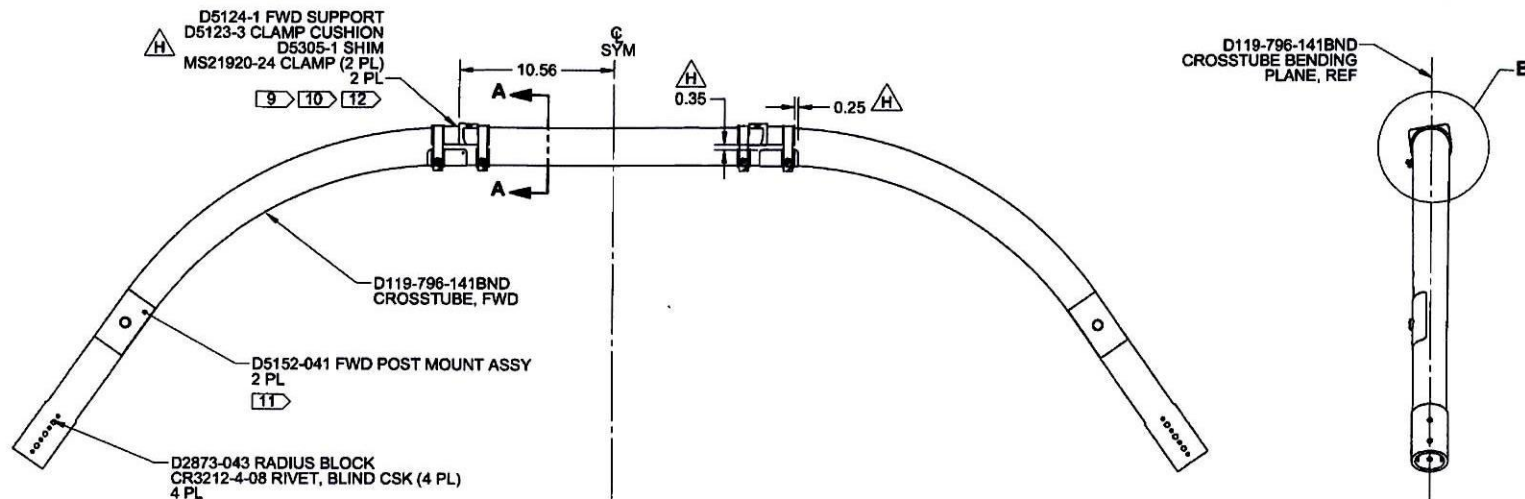


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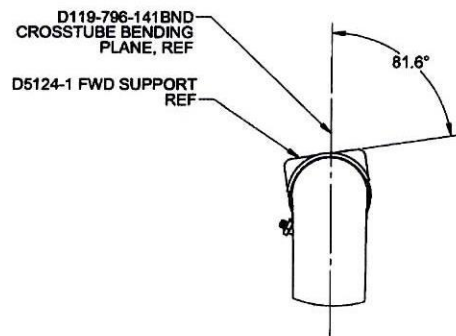
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: APPLY MATTE CLEAR COAT PER QSI 005 4.2
MASK D5124-1 FWD SUPPORTS, D5305-1 SHIMS AS WELL AS UNDERSIDE OF CROSSTUBE AS SHOWN (B3-1, HATCHED AREA),
PAINT OUTSIDE PER DART QSI 005 4.2 AFTER APPLYING CLEAR COAT
DO NOT APPLY FINISH (PAINT OR CLEAR COAT) TO CUFFS IN LOCATION SHOWN, MASK PRIOR TO FINISHING
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY USING PART NUMBER "D119-796-141" AND BATCH NUMBER ON INSIDE OF CUFF PER QSI 044 6.4
- 7) WEIGHT: 18.54 lbs
- 8) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE.
THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM DEFECTS SUCH AS SCRATCHES, NICKS OR DENTS.
DEFECTS UP TO 0.005 MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 9) PRIOR TO FINISHING, ABRASE MATING SURFACES OF D5124-1 FWD SUPPORTS AND CROSSTUBE WITH SCOTCH BRITE 7447 RED AND REMOVE RESIDUE WITH DUPONT 4105S WASH'N'WIPE DEGREASER. APPLY A 0.1 MIN THK LAYER OF PROSEAL 890 ON THE INSIDE CONCAVE SURFACE OF THE D5124-1 FWD SUPPORTS AND INSTALL AT AN 8.4" OFFSET FROM THE CROSSTUBE BENDING PLANE. INSTALL THE MS21920-24 CLAMPS AND D5123-3 CLAMP CUSHIONS WHILE WET.
- 10) TORQUE MS21920 CLAMPS 80 - 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY, THE NUT IS FACING AFT AND HAS NOT BOTTOMED-OUT AFTER TORQUING. PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER PROSEAL 890 SEALANT HAS CURED FOR 72 HOURS.
- 11) PRIOR TO FINISHING, ABRASE MATING SURFACES OF CROSSTUBE AND D5152-041 WITH SCOTCH BRITE 7447 RED AND REMOVE RESIDUE WITH DUPONT 4105S WASH'N'WIPE DEGREASER. INSTALL D5152-041 WITH LAYER OF PROSEAL 890 ON INSIDE CONCAVE SURFACE, 0.1 MIN THK. LOCATE D5152-041 USING TOOL DT10089.
- 12) PRIOR TO FINISHING, ABRASE MATING SURFACES OF CROSSTUBE AND D5305-1 SHIM WITH SCOTCH BRITE 7447 RED AND REMOVE RESIDUE WITH DUPONT 4105S WASH'N'WIPE DEGREASER. INSTALL D5305-1 SHIM WITH LAYER OF PROSEAL 890 ON INSIDE CONCAVE SURFACE, 0.1 MIN THK. USE ADDITIONAL TEMPORARY MS21920-24 CLAMP TO APPLY CLAMPING PRESSURE FOR 72 HOURS.

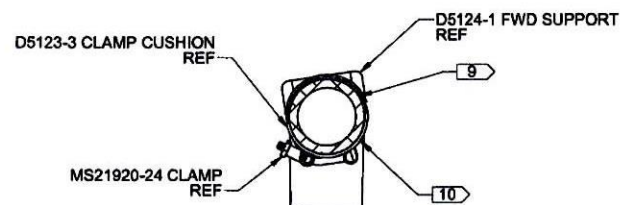
H	ADD D5305-1 SHIM, D8024-103 WAS D6005-103, D5124-1 NOW INSTALLED ON PRIMER	AP	15.10.13
G	FINISHING ORDER ADJUSTED, CR3212-4-08 WAS -07, CUFF DIA TOLERANCE INCREASED TO +/- 0.005	AP	15.04.24
F	REMOVED PRIMER/ PAINT ON CUFFS, 2.516 WAS 2.500 (C8-5)	AP	15.02.03
E	D5152-041 FWD STEP POST ASSY WAS D5150-1 STEP POST, SCOTCH BRITE 7447 RED WAS 180 GRIT SANDPAPER, ANGLE (B7-2) DIMENSIONED FROM NEW DATUM	DB	15.01.15
D	ADD D5150-1 STEP POST (2X), MOVED INSPECTION WINDOW DETAIL TO SHEET 1, MODIFIED NOTES ON SHT 1 & 3	DB	14.11.25
C	CR3212-4-07 RIVETS WERE CR3212-4-09, 7.5 DEG CUFF ANGLE OFFSET REMOVED (SHT 3), CUFF DIAMETER ON D119-796-141TRN REDUCED TO 2.500, ADDED INSPECTION WINDOW (B7-3), ADDED SHT 4	AP	14.10.23
B	ADDED D2873-043 RADIUS BLOCK, CR3212-4-09 RIVETS, ADDED SKIDTUBE REFERENCE FOR LOCATING CUFF HOLES, RE-ORGANIZED NOTES AND REMOVED REDUNDANT INFORMATION	AP	14.09.02
A	NEW ISSUE	AP	14.08.09
REV.	DESCRIPTION	BY	DATE
DESIGN	AP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AP		
CHECKED	AJS	DRAWING NO.	REV. H
MFG. APPR.	JLM	D119-796-141	SHEET 1 OF 6
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	XTUBE ASSY (AW119 MKII FWD)	NTS
DATE	15.10.13	COPYRIGHT © 2014 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



D119-796-141 XTUBE ASSY (AW119 MKII FWD)



DETAIL B
SCALE 2X

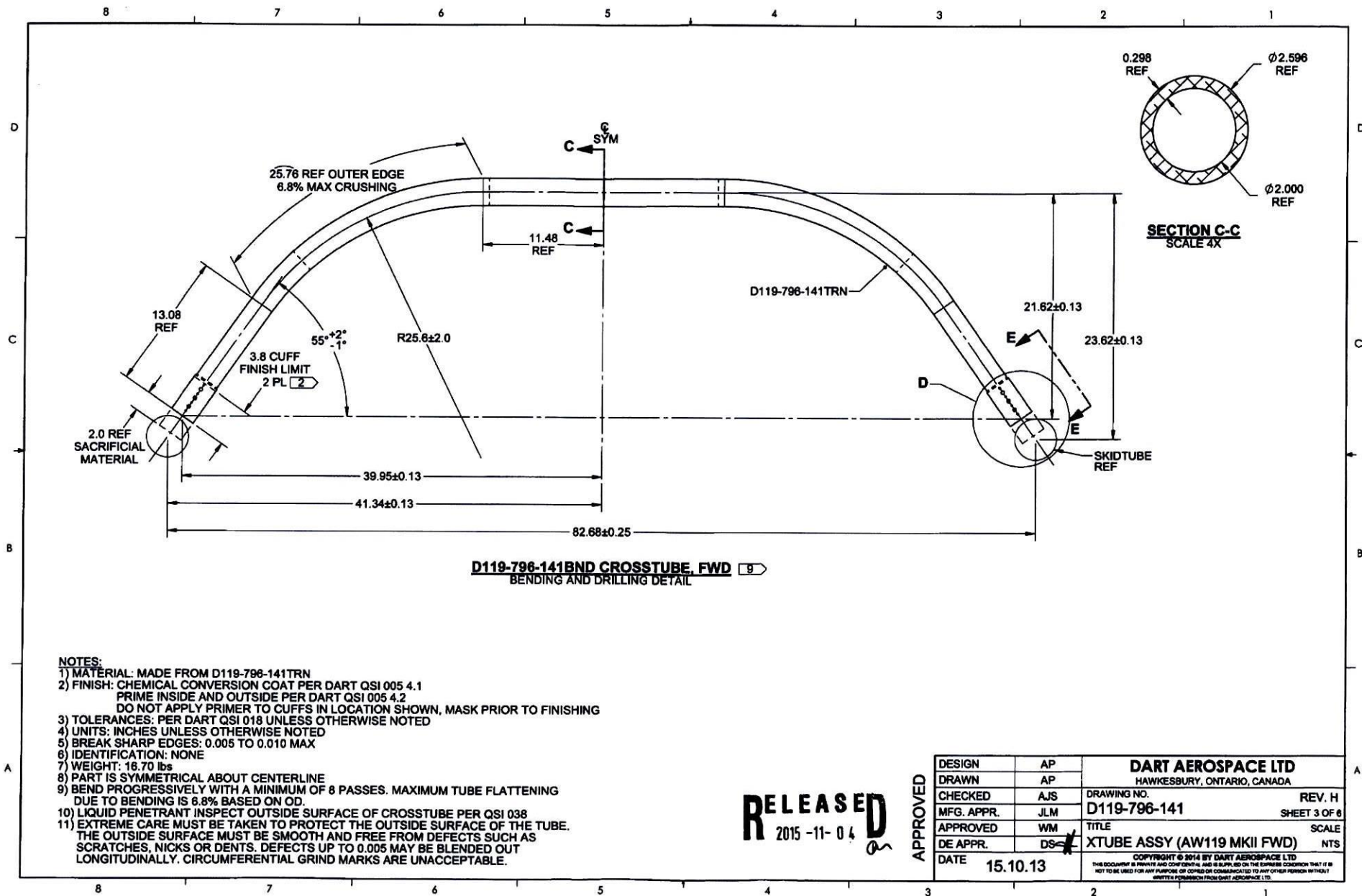


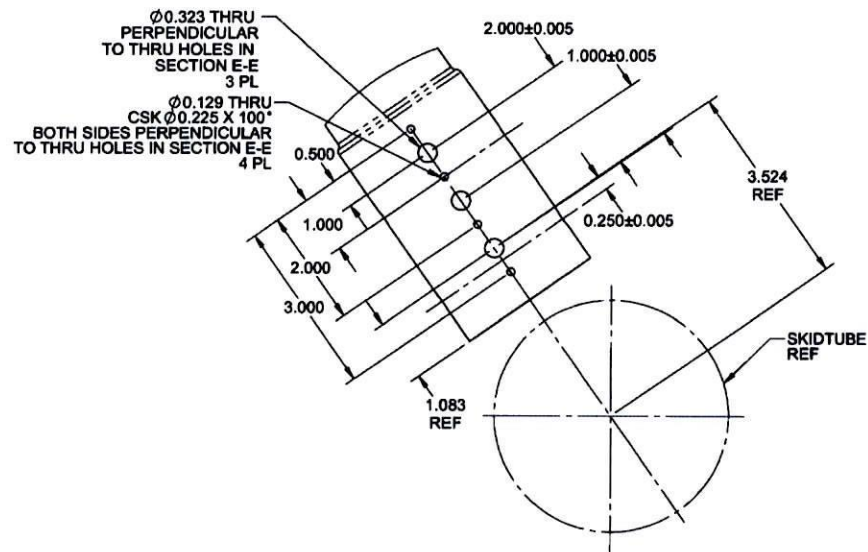
SECTION A-A
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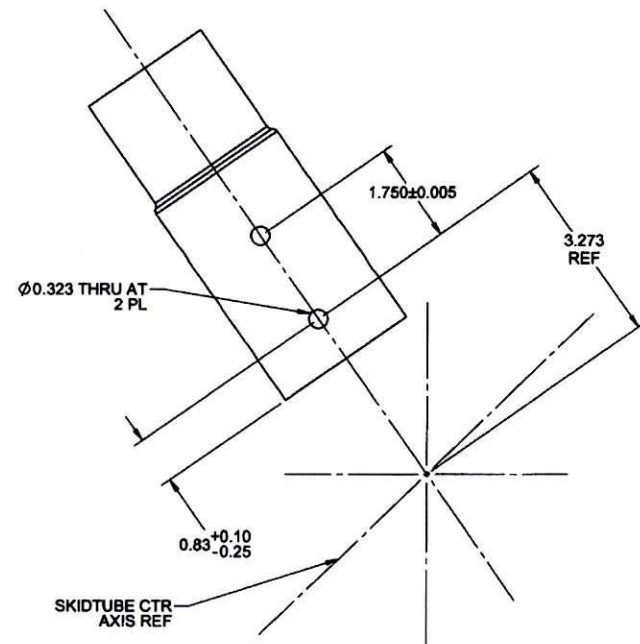
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CHECKED	AJS	DRAWING NO.	REV. H
MFG. APPR.	JLM	D119-796-141	SHEET 2 OF 6
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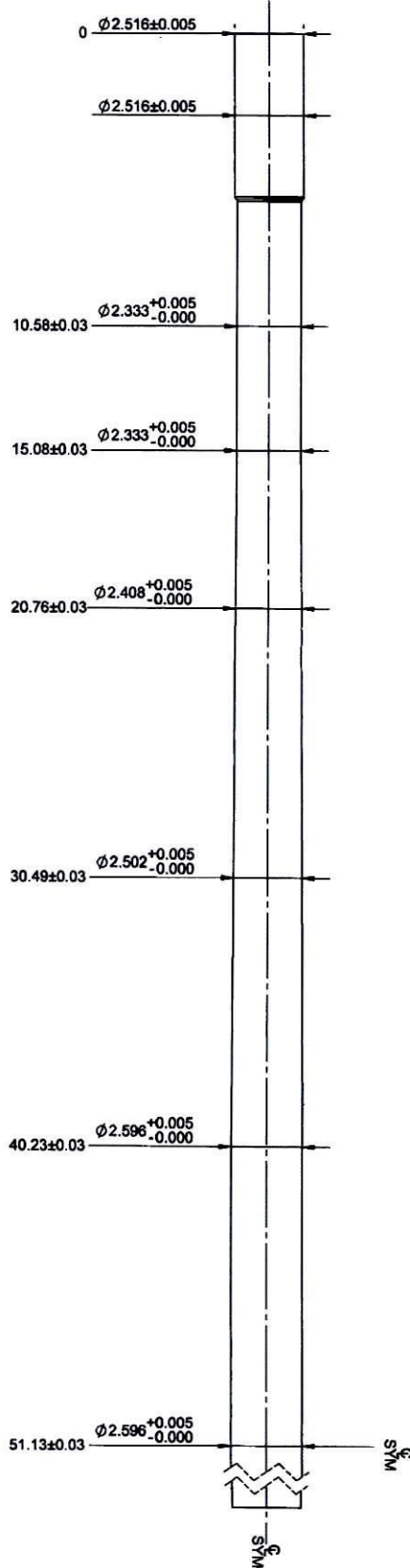


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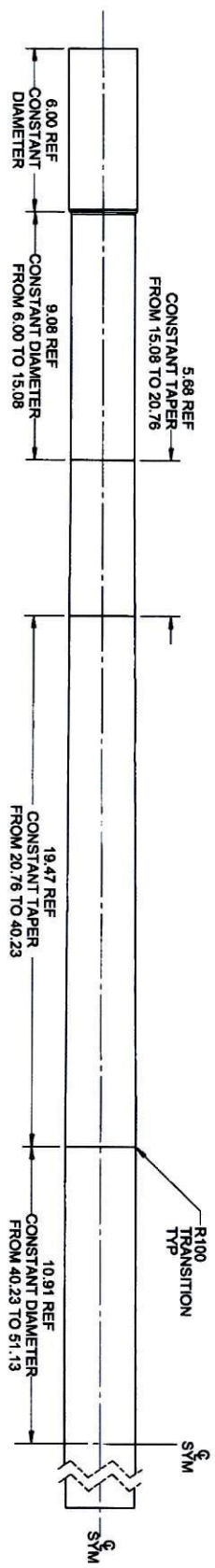
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CHECKED	AJS	DRAWING NO.	REV. H
MFG. APPR.	JLM	D119-796-141	SHEET 4 OF 6
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	XTUBE ASSY (AW119 MKII FWD)	NTS
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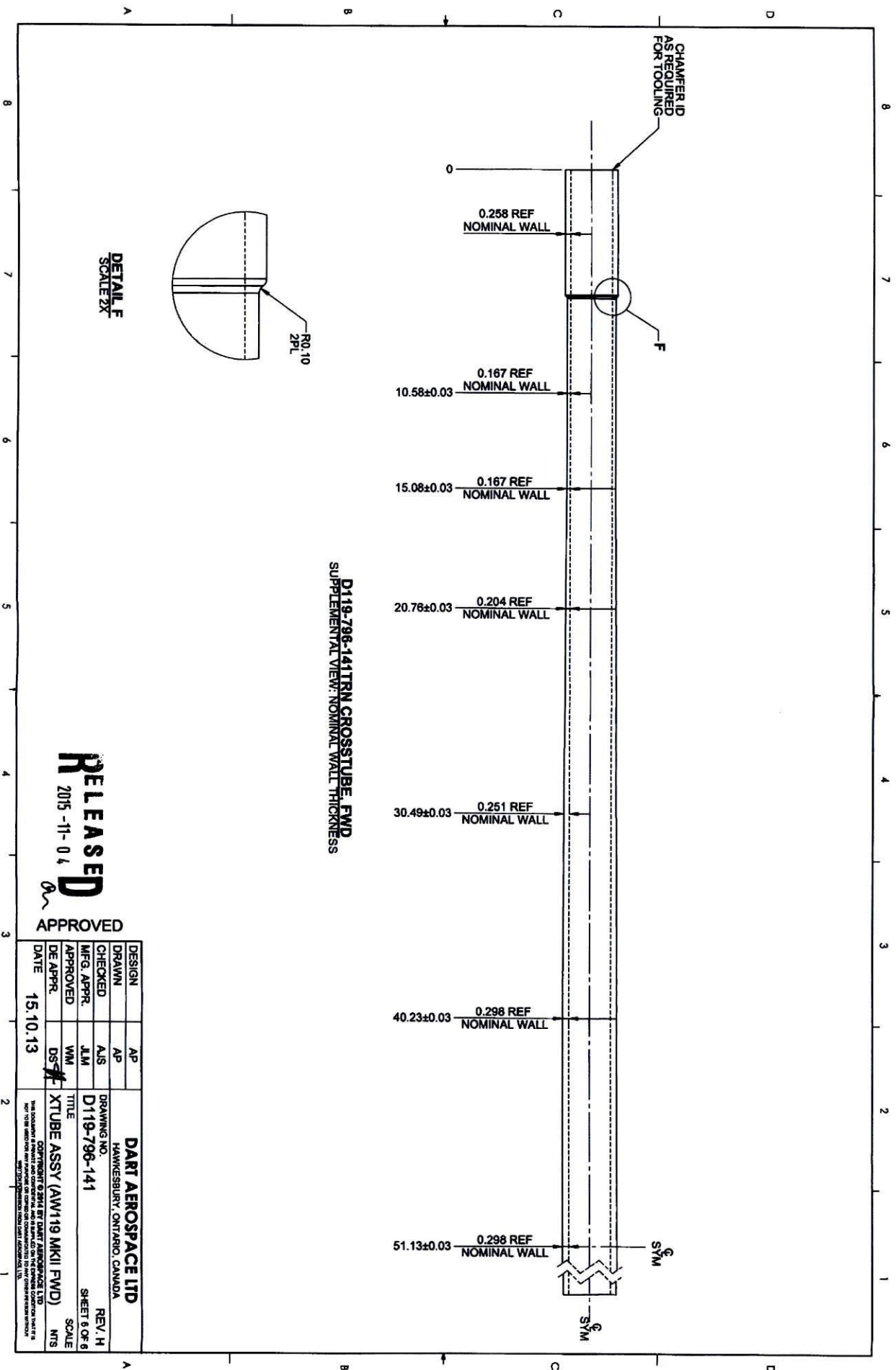
D119-796-141TRN CROSSTUBE, FWD



- NOTES:**
- 1) MATERIAL: MANUFACTURE FROM D8024-103 (PREFERRED) OR D8005-103
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 16.70 LBS
 - 8) PART IS SYMMETRICAL ABOUT CENTERLINE

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2015-11-04
APPROVED

DESIGN	AP	AP	DART AEROSPACE LTD
DRAWN	AP	AP	HAWKESBURY, ONTARIO, CANADA
CHECKED	AJS	AJS	REV. H
MFG. APPR.	JLM	JLM	D119-796-141
APPROVED	WMI	WMI	SHEET 5 OF 8
DATE	DS	DS	SCALE
15.10.13			NTS



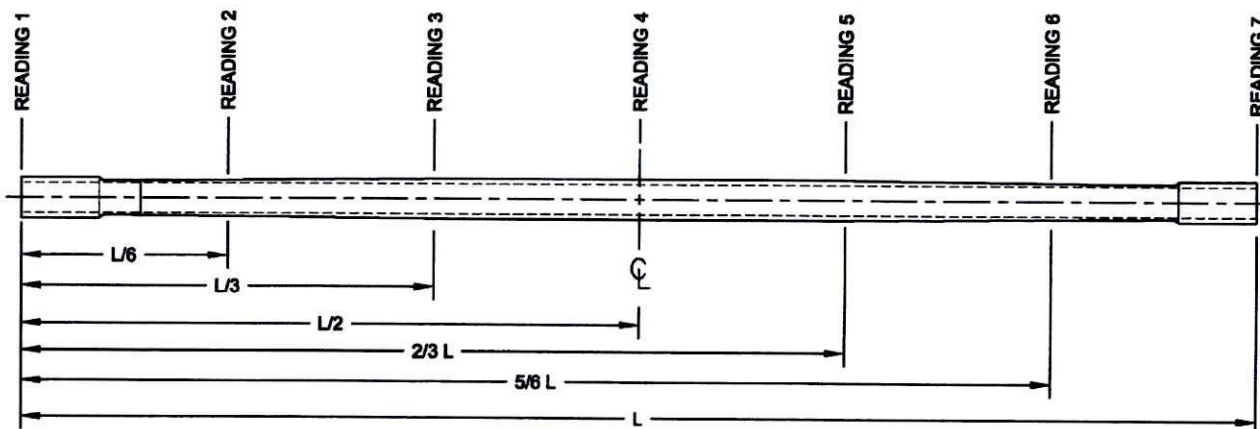
DART AEROSPACE LTD	Work Order: 174925
Description: Crosstube Assembly (AW119 MKII Fwd)	Part Number: D119-796-141TRN
Inspection Dwg: D119-796-141 Rev: H	Page 1 of 2

FIRST ARTICLE INSPECTION CHECKLIST

	Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
SIDE A	6.00	+/-0.030	5.998	✓		VERN 08	
	2.516	+/-0.005	2.520	✓			
	2.333	+0.005/-0.000	2.338	✓			
	2.333	+0.005/-0.000	2.338	✓			
	2.408	+0.005/-0.000	2.413	✓			
	2.502	+0.005/-0.000	2.507 PMP	✓			
	2.596	+0.005/-0.000	2.601	✓			
	2.596	+0.005/-0.000	2.601 PMP	✓			
SIDE B	6.00	+/-0.030	5.996	✓			
	2.516	+/-0.005	2.519	✓			
	2.333	+0.005/-0.000	2.337	✓			
	2.333	+0.005/-0.000	2.338	✓			
	2.408	+0.005/-0.000	2.412	✓			
	2.502	+0.005/-0.000	2.507	✓			
	2.596	+0.005/-0.000	2.601	✓			
	2.596	+0.005/-0.000	2.601	✓			
	102.26	+/-0.020	102.200		✓	TAPE	PART STILL OK GOOD !! Measured 102.24

DART AEROSPACE LTD	Work Order:	
Description: Crosstube Assembly (AW119 MKII Fwd)	Part Number:	D119-796-141TRN
Inspection Dwg: D119-796-141 Rev: H		Page 2 of 2

WALL THICKNESS MEASUREMENT



Location	WALL THICKNESS MEASUREMENT (IN)				Deviation Δw (max-min)	TOLERANCE
	w1	w2	w3	w4		
READING 1 L= 0"	258	256	263	263	.007	0.030"
READING 2 L= 17.04	181	187	184	180	.007	
READING 3 L= 34.09	262	273	279	268	.017	0.063"
READING 4 L= 51.13	295	297	303	299	.008	
READING 5 L= 68.17	267	277	273	262	.015	
READING 6 L= 85.22	183	187	180	177	.010	0.030"
READING 7 L= 102.26	254	253	265	266	.013	

Calibration Result

Actual Block Thickness: 100-300

Sitescan 250 Measured Thickness: 100-300

DAS
56

Measured by:	9-89
Date:	2018-04-12

Audited by:	<i>[Signature]</i>
Date:	18-04-16

Preliminary Approval:	
Date:	

Rev	Date	Change	Revised by	Approved
A	15.04.14	New Issue (P/O D119-796-101)	KJ	
B	15.05.14	Tolerances revised per Dwg Rev G	KJ	
C	16.05.27	Dwg Rev updated	KJ	
D	16.09.13	Tolerance revised for Reading 3, 6 & 7	KJ	<i>[Signature]</i>